Robert C Dynes

List of Publications by Year
in descending order

53	5,234	279798	189892
papers	citations	23 h-index	50 g-index

53	53	53	3105
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Transition temperature of strong-coupled superconductors reanalyzed. Physical Review B, 1975, 12, 905-922.	3.2	2,690
2	Reproducible tunneling data on chemically etched single crystals ofYBa2Cu3O7. Physical Review Letters, 1989, 63, 1008-1011.	7.8	431
3	Observation of Josephson pair tunneling between a high-Tccuprate (YBa2Cu3O7â˜Î) and a conventional superconductor (Pb). Physical Review Letters, 1994, 72, 2267-2270.	7.8	418
4	c-axis Josephson Tunneling betweenYBa2Cu3O7â˜Î´and Pb: Direct Evidence for Mixed Order Parameter Symmetry in a High-TcSuperconductor. Physical Review Letters, 1997, 79, 3050-3053.	7.8	195
5	Nano Josephson superconducting tunnel junctions in YBa2Cu3O7â€“Î´ directly patterned with a focused helium ion beam. Nature Nanotechnology, 2015, 10, 598-602.	31.5	146
6	Ion-beam-induced metal-insulator transition inYBa2Cu3O7â˜Î: A mobility edge. Physical Review B, 1989, 39, 11599-11602.	3.2	144
7	Pair Tunneling fromc-AxisYBa2Cu3O7â˜'xto Pb: Evidence fors-Wave Component from Microwave Induced Steps. Physical Review Letters, 1996, 76, 2161-2164.	7.8	128
8	Electron tunneling into single crystals ofYBa2Cu3O7â˜Î´. Physical Review B, 1991, 44, 11986-11996.	3.2	97
9	Fluctuation Dominated Josephson Tunneling with a Scanning Tunneling Microscope. Physical Review Letters, 2001, 87, 097004.	7.8	83
10	Crossover from phase fluctuation to amplitude-dominated superconductivity: A model system. Physical Review B, 2001, 63, .	3.2	79
11	Direction of tunneling inPb/I/YBa2Cu3O7â˜'xtunnel junctions. Physical Review B, 1996, 54, 6734-6741.	3.2	65
12	Observation of a Discontinuous Transition from Strong to Weak Localization in 1D Granular Metal Wires. Physical Review Letters, 1996, 76, 668-671.	7.8	59
13	Fabrication of all thinâ€film YBa2Cu3O7â˜Îâ€‰/Pb Josephson tunnel junctions. Applied Physics Letters, 1995, 66, 105-107.	3.3	54
14	Transport properties of high-Tc planar Josephson junctions fabricated by nanolithography and ion implantation. Journal of Applied Physics, 2000, 87, 2978-2983.	2.5	48
15	Universal transport in two-dimensional granular superconductors. Physical Review B, 2002, 66, .	3.2	48
16	Very Large Scale Integration of Nanopatterned YBa₂Cu₃O_{7â˜Î´} Josephson Junctions in a Two-Dimensional Array. Nano Letters, 2009, 9, 3581-3585.	9.1	48
17	Planar MgB2 Josephson junctions and series arrays via nanolithography and ion damage. Applied Physics Letters, 2006, 88, 012509.	3.3	44
18	Series array of incommensurate superconducting quantum interference devices from YBa2Cu3O7â˜Î´ ion damage Josephson junctions. Applied Physics Letters, 2008, 93, 182502.	3.3	37

#	Article	IF	Citations
19	Direct-coupled micro-magnetometer with Y-Ba-Cu-O nano-slit SQUID fabricated with a focused helium ion beam. Applied Physics Letters, 2018, 113, 162602.	3.3	33
20	Large voltage modulation in magnetic field sensors from two-dimensional arrays of Y-Ba-Cu-O nano Josephson junctions. Applied Physics Letters, 2014, 104, .	3.3	31
21	Comparison of measurements and simulations of series-parallel incommensurate area superconducting quantum interference device arrays fabricated from YBa2Cu3O7â˜ Î´ ion damage Josephson junctions. Journal of Applied Physics, 2012, 112, .	2.5	28
22	The fabrication of reproducible superconducting scanning tunneling microscope tips. Review of Scientific Instruments, 2001, 72, 1688.	1.3	25
23	Synthesis and properties ofaâ€axis andbâ€axis oriented GdBa2Cu3O7â˜Îhightcthin films. Applied Physics Letters, 1992, 61, 2598-2600.	3.3	23
24	Josephson scanning tunneling microscopy: A local and direct probe of the superconducting order parameter. Physical Review B, 2009, 80, .	3.2	23
25	Negative magnetoresistance, negative electroresistance, and metallic behavior on the insulating side of the two-dimensional superconductor-insulator transition in granular Pb films. Physical Review B, 2006, 73, .	3.2	21
26	Superconducting neural networks with disordered Josephson junction array synaptic networks and leaky integrate-and-fire loop neurons. Journal of Applied Physics, 2021, 129, .	2.5	21
27	Scanning Josephson Tunneling Microscopy of Single-Crystal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mn mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>8</mml:mn><mml:mo>+</mml:mo><mml:mi>Î´</mml:mi></mml:mrow></mml:msub></mml:math> a Conventional Superconducting Tip. Physical Review Letters, 2008, 101, 037002.	7.8	18
28	Granular superconductors and ferromagnets: A proximity-effect-based analogue. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 1153-1165.	0.6	17
29	Proximity effect in ultrathin Pb/Ag multilayers within the Cooper limit. Physical Review B, 2003, 68, .	3.2	17
30	Josephson Effect in Pb/I/NbSe2 Scanning Tunneling Microscope Junctions. International Journal of Modern Physics B, 2003, 17, 3569-3574.	2.0	17
31	Low-temperature emergent neuromorphic networks with correlated oxide devices. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
32	Operando characterization of conductive filaments during resistive switching in Mott VO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
33	Inherent stochasticity during insulatorâ€“metal transition in VO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
34	Variation of the density of states in amorphous GdSi at the metal-insulator transition. Physical Review B, 2004, 69, .	3.2	14
35	Comparison of Yâ€“Baâ€“Cuâ€“O Films Irradiated With Helium and Neon Ions for the Fabricationof Josephson Devices. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	10
36	Nanometer scale high-aspect-ratio trench etching at controllable angles using ballistic reactive ion etching. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 010604.	1.2	9

#	Article	IF	Citations
37	Large scale two-dimensional arrays of magnesium diboride superconducting quantum interference devices. Applied Physics Letters, 2014, 104, 182604.	3.3	9
38	Neuromorphic computing: Challenges from quantum materials to emergent connectivity. Applied Physics Letters, 2022, 120, .	3.3	9
39	Effect of ion-irradiation-induced disorder on the low-field magnetoresistance of La0.67A0.33MnO3 (A=Sr, Ca). Journal of Applied Physics, 1999, 85, 4791-4793.	2.5	8
40	Do ballistic channels contribute to the magnetoresistance in magnetic tunnel junctions?. Applied Physics Letters, 2002, 80, 285-287.	3.3	8
41	Superconducting tunneling as a probe of sputtered oxide barriers. Applied Physics Letters, 1999, 75, 127-129.	3.3	7
42	Superconducting disordered neural networks for neuromorphic processing with fluxons. Science Advances, 2022, 8, eabn4485.	10.3	7
43	Restingâ€state magnetoencephalography source magnitude imaging with deepâ€learning neural network for classification of symptomatic combatâ€related mild traumatic brain injury. Human Brain Mapping, 2021, 42, 1987-2004.	3.6	5
44	Spin Polarized Tunneling at the Metal-Insulator Transition. International Journal of Modern Physics B, 2003, 17, 3723-3725.	2.0	4
45	LOCALIZATION AND THE METALâ€“INSULATOR TRANSITION â€” EXPERIMENTAL OBSERVATIONS. International Journal of Modern Physics B, 2010, 24, 2072-2089.	2.0	3
46	Micrometer Scale Yâ€“Baâ€“Cuâ€“O SQUID Arrays Fabricated With a Focused Helium Ion Beam. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-3.	1.7	2
47	Conduction and superconductivity in quench condensed metallic films. AIP Conference Proceedings, 1992, , .	0.4	1
48	Crossover from two- to three-dimensional magnetic disorder in submonoatomic ferromagnetic layers. Physical Review B, 2003, 68, .	3.2	1
49	Fabrication of Arrays of Nano-Superconducting Quantum Interference Devices Using a Double-Angle Processing Approach. IEEE Transactions on Applied Superconductivity, 2013, 23, 1100604-1100604.	1.7	1
50	Superconducting Nano Wire Circuits Fabricated using a Focused Helium Beam. Microscopy and Microanalysis, 2015, 21, 1997-1998.	0.4	1
51	Improved Fitting Of the Spin Polarized Tunneling Conductance Near the Metal-Insulator Transition. AIP Conference Proceedings, 2006, , .	0.4	0
52	Application of Focused Helium Ion Beams for Direct-write Lithography of Superconducting Electronics. Microscopy and Microanalysis, 2015, 21, 2321-2322.	0.4	0
53	Oxide superconductorsâ€”light on a continuing mystery. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2024422118.	7.1	0